



47TH TURBOMACHINERY & 34TH PUMP SYMPOSIA
HOUSTON, TEXAS | SEPTEMBER 17-20, 2018
GEORGE R. BROWN CONVENTION CENTER

Pumps 101

Judy Hodgson, PE
Daniel W. Wood

JE HODGSON CONSULTING
Pumps, Piping & Process

Chemours™

ATM | TEXAS A&M UNIVERSITY

TEES

TURBOMACHINERY LABORATORY
TEXAS A&M ENGINEERING EXPERIMENT STATION

Dan Wood - Presenter

- Principal Consultant at **Chemours**, in Wilmington, DE providing global pump, mechanical seal, and pumping system project and field technical support. Previously with DuPont and Flowserve compiling 28+ years of pumping system experience. Voting member for ASME B73 pump committees and participates in Hydraulic Institute. He is a Level III Vibration Analyst. B.S.M.E. degree from the University of Cincinnati.



Judy Hodgson, PE - Presenter

- President of **JE Hodgson Consulting**. Previously with DuPont and Westinghouse, with >20 years of troubleshooting pumping systems and seals at chemical and nuclear plants worldwide as a corporate pump consultant & an R&D engineer. Currently, consulting on pump reliability and computer modeling pumping systems. Judy also provides pipe stress analysis consulting. B.S.M.E. degree from Penn State and registered PE in DE.



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Agenda

1. Pump Types & Construction

- Classification
- Basic Pump Design

- Coffee Break 10 – 10:30 AM



2. Comparison of Centrifugal, Rotary & Reciprocating Pumps



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Agenda (Continued)

3. Centrifugal Pump Performance
 - Pump Curves
 - Parallel & Series Operation
- Lunch Break 12 – 1:15 PM
4. System Design



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Agenda (Continued)

5. Pumping Issues & Pump Designs that Address Them
 - Coffee Break 3 – 3:30 PM
6. Installation and Operation
 - End 5 PM



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